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AN EVALUATION OF A COLLABORATIVE, BLENDED LEARNING COURSE FOR STAFF AT MONASH UNIVERSITY LIBRARY

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Abstract

Monash University Library contributes to learning and teaching within the curriculum through its information research and learning skills programs. The Library is aligned with the University's digital education strategic goals; and thus considers the development and delivery of e-learning resources for blended and online learning environments an important strategic undertaking. With complex and dispersed Library, faculty and cross-campus activities, increasing e-learning staff development opportunities is challenging. This paper reports on the second iteration of a blended learning staff development course designed and conducted by the Library. A pragmatic approach was taken, using predominantly social constructivist learning and a mixed methods methodology to gather feedback to make informed design decisions for the third iteration of the course. The course evaluation showed that the course was effective overall, but can be improved in several ways, such as re-evaluating staff time for completion of tasks and increasing the ratio of synchronous versus asynchronous learning activities.

Keywords: university libraries, academic libraries, skills development, e-learning, blended learning, online learning, staff development

1. Introduction

This paper describes the evaluation of the second iteration of a blended learning course for staff (*Design and Develop an e-Learning Module*) conducted by Monash University Library in late 2012 to early 2013. The aim of the course was to develop staff capability to develop e-learning resources through a combination of online activities and face-to-face workshops.

The course was first run in 2011 after which a similar evaluation was carried out. Several changes were implemented as a result of recommendations from the evaluation, as reported in this paper. Consideration is also given to improving the next, third iteration of this course.

The paper begins with the University and Library context, in relation to Monash University Library's role of contributing to University learning and teaching strategic goals. The re-design recommendations from the first iteration of the course are then reported, followed by a description of the revised course design. The next sections describe the mixed methods approach used in evaluating the course, an explanation of the results and findings. Finally, recommendations for future instances of this course are provided.

2. Background

Monash University, in common with other universities in Australia and internationally, is increasingly focused on challenging its teaching and learning for improved outcomes through

blended, face to face and e-learning approaches. In a university with some 63,000 students spread across six campuses in Victoria, Australia and two overseas campuses in Malaysia and South Africa, this presents a mix of challenges and opportunities for the University and the Library.

In mid-2009, the Library established a position of e-Learning Coordinator to provide leadership and work with Library staff to build their capability in the e-learning space. This includes working with teams of librarians and learning skills advisers who engage collaboratively with academics and directly with students to develop students' information research and learning skills through curricula and co-curricula learning. The University's heightened strategic focus on digital education and blended approaches to teaching and learning coincided with this development, and the Library's subsequent creation of an e-learning strategy. With these initiatives, the Library is building on its increasing use and development of electronic resources and services, which include more than 1,000 databases, 78,000 e-journals and 420,000 e-books, and its development, management and dissemination of the University's electronic content. The Library does this through the Monash University repository, Monash University Publishing and collaborative leadership of research data management. Further resources and services contributed by the Library to staff and student e-learning and e-teaching environments include: online lectures and reading lists; a resource discovery layer; past exams; SMS services, and; the Library space of the University FAQ and enquiry services.

To contribute most effectively to the University's digital education and blended learning strategic goals, the Library's focus is on developing more interactive and engaging resources, services, tools, delivery mechanisms and spaces for online engagement and enhanced e-learning. Building staff capability to contribute effectively to this environment is of paramount importance, and led, in 2010, to the identification of an online course for staff, as a potentially effective way to develop capability in relation to e-learning. The first iteration of the course, run in 2011, was specifically focused on the use of Adobe Captivate to create interactive learning objects and experiences, and engagement with Moodle, the University's new learning management system and key plank of its virtual learning environment. The aim was to develop and implement an initial course for building staff capability that could then be evaluated for future iterations. Experience with, and evaluation of, the first course resulted in a revised second course implementation in 2012-13.

3. Re-design suggestions

The first iteration of the course titled *Design and Develop an e-Learning Module using Captivate* was considered successful as it: increased opportunities for staff to collaborate on tasks, contributed to Monash University's digital education strategy, and produced quality artefacts for teaching and learning.

This course was subsequently renamed *Design and Develop an e-Learning Module* to account for the various modes of technology that participants required for their end product, ranging from use of Adobe Captivate only, to using this in combination with the Moodle Learning Management System. Furthermore, the course was found to be more about collating various kinds of resources into a coherent whole for the purposes of improved learning than learning how to use one particular technology tool.

While the course was considered a success, several improvements were suggested (Smith & Yates, 2012):

- 1) Reduce the cognitive load in the course design to make it easier for participants to read and find task requirements;
- 2) Provide a pre-course introduction about how the course is to be completed so that participants know what is expected of them and to develop their familiarity with the technology;
- 3) Provide a greater number of opportunities for participants to practise their development skills; and
- 4) Negotiate blocks of time for participants away from their daily work to complete the course tasks.

The design of the current course was based largely on the previous one, incorporating these and other suggestions.

4. Design, development and implementation

Like the earlier iteration, the aims of this course were to: (1) develop staff capability to create e-learning modules, and (2) create authentic e-learning resources for use in teaching and learning. The aim of (1) was extended to include a greater number of e-learning development tools compared with the previous course.

The course design takes a blended learning approach and is in alignment with the blended learning strategy of Monash University and the Library. Blended learning environments include a combination of technology enabled activities and face-to-face learning activities (Graham & Dziuban, 2008). This course consisted of predominantly asynchronous online activities for the development of e-learning knowledge and skills with several face-to-face workshops focused mainly on developing participants' software skills.

The course learning design is social constructivist (Vygotsky, 1978) as it was in the previous course. Using this learning approach, course tasks were designed for participants to work together on tasks to construct knowledge and useful artefacts, such as mind maps, storyboards, and multimedia learning activities for an effective learning experience. The construction of real life artefacts provides authentic learning opportunities. Authentic learning settings provide opportunities for learners to immerse themselves in a complex learning environment resembling the one in which their skills will be applied in the real world (Herrington, Reeves, & Oliver, 2006).

It was assumed that participants would also learn from each other, especially through peer review activities, such as reviewing each others' storyboards and multimedia artefacts. In addition, participants from the previous course were asked to be course mentors.

The course consisted of twelve tasks, four workshops, pre-course work, and a reading activity. Participants were required to login to Moodle to access their task information and provide their contributions through discussion forum messages and uploading of their work.

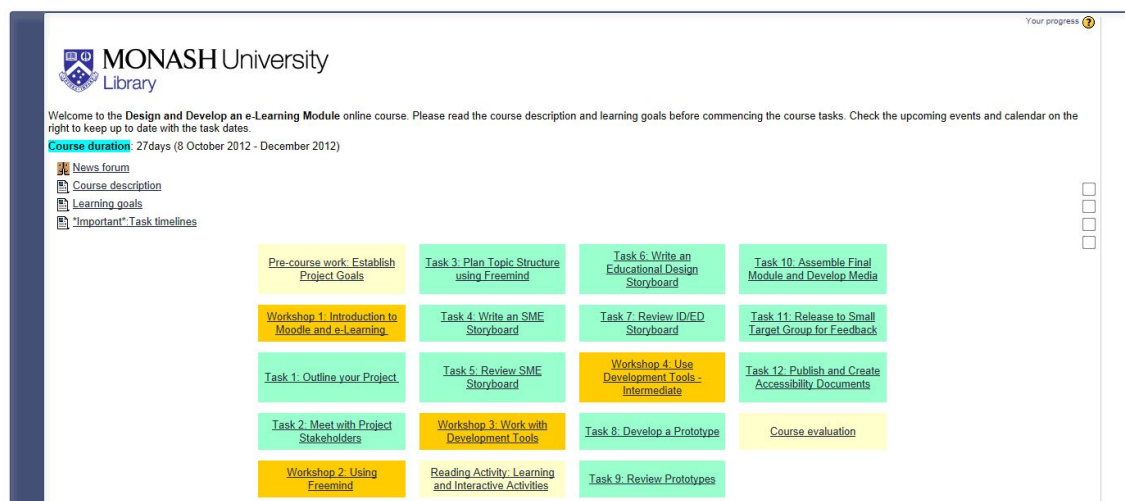


Figure 1: Moodle block menu format

The course was structured as follows, covering the milestones necessary to develop an e-learning module (see Appendix for details of each task):

- Pre-course work: Establish project goals
- Workshop 1: Introduction to Moodle and e-learning

- Task 1: Outline your project
- Task 2: Meet with project stakeholders
- Workshop 2: Using Freemind
- Task 3: Plan topic structure using Freemind
- Task 4: Write a subject matter expert storyboard
- Task 5: Review subject matter expert storyboard
- Workshop 3: Work with development tools
- Reading activity: Learning and interactive activities
- Task 6: Write an educational design storyboard
- Task 7: Review educational design storyboard
- Workshop 4: Use development tools - intermediate
- Task 8: Develop a prototype
- Task 9: Review prototypes
- Task 10: Assemble final module and develop media
- Task 11: Release to small target group for feedback
- Task 12: Publish and create accessibility documents

5. Evaluation approach

A 'design experiment' evaluation approach was taken in this project. This is a way of conceptualising research about learning interventions typically characterised as complex and involving various stakeholders, such as researchers, teachers, instructional designers and experts, and which result in practical outcomes (Bannan-Ritland, 2003). Cobb, Confrey, diSessa, Lehrer and Schauble (2003) contend that design experiments have practical and theoretical outcomes. This project is a practical learning intervention for Library staff and requires appropriate evaluation methods in order to improve the effectiveness of the course and refine the design. This is essential, as staff time and effort is impacted, as well as there being a need to provide students with quality learning resources and to align with University strategies.

A mixed methods (Johnson & Onwuegbuzie, 2004; Leech & Onwuegbuzie, 2009) research design was used in this evaluation, which incorporates elements of quantitative and qualitative methods, although in this study most findings are qualitative. Efforts were made to use multiple methods for triangulation (Johnson, Onwuegbuzie, & Turner, 2007) to examine findings from multiple perspectives. This is more naturalistic, aligns with practice in the workplace and is useful where there is minimal statistical evidence on which to base decisions.

Data was gathered using five main methods as was done in (Smith & Yates, 2012). These included: (1) course output, (2) participant feedback, (3) expert reviews, (4) observation, and (5) records. The four main evaluation dimensions: effectiveness, usability, functionality, and appeal were drawn from Reeves and Hedberg (2003) (see Table 1: Evaluation methods which shows the various data collection instruments used for each dimension).

Methods	Instruments	Functionality	Usability	Appeal	Effectiveness
1) Course output	Task artefacts				X
2) Participant feedback	Questionnaire	X	X	X	X
	Focus group	X	X	X	X
3) Expert evaluation	Expert rating form	X	X	X	X
4) Observation	Participant observation	X	X	X	X
5) Records	Implementation log	X	X	X	X

Table 1: Evaluation methods

This evaluation involved the following participants: (1) course participants (seven in total in three project groups), (2) expert reviewers (two professional educational designers), (3) participant observer (the course designer/facilitator, and (4) mentors (participants from the previous course).

6. Results and findings

6.1 Task artefacts

Participants were required to produce a number of artefacts as part of completing course tasks. These included mind maps, subject matter expert and educational design storyboards, and multimedia e-learning modules created in Adobe Captivate and Moodle (see Figure 2 - Figure 7).

The work produced was of a high standard and work progressed rapidly in the beginning, but then slowed significantly as participants took on other work and personal commitments towards the end of the year. Participants improved their work as a result of feedback provided by other groups and also organised themselves into meeting and work groups outside the course and collaborated across campuses. This supports the social constructivist approach taken in this course. However deadlines were often not met although staff were given blocked time to complete the more onerous tasks. The reality of their work situation did not support these time blocks. Furthermore, a new version of Adobe Captivate was purchased and delays with installation meant that new templates could not be created in time for workshops. Not having the software also meant that it was more difficult for participants to write their educational design storyboards, as they were not sure of the types of interactions that were possible. These factors impacted negatively on the effectiveness of the course.

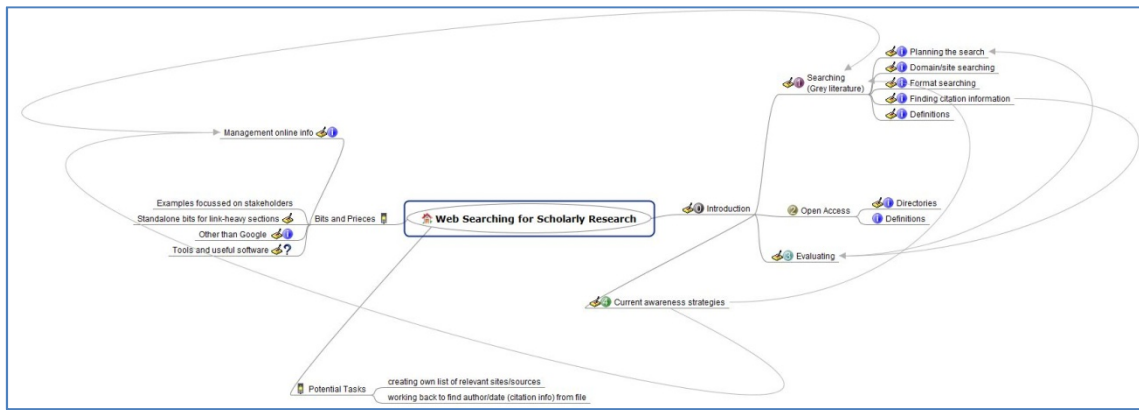


Figure 2: Example mind map showing full image

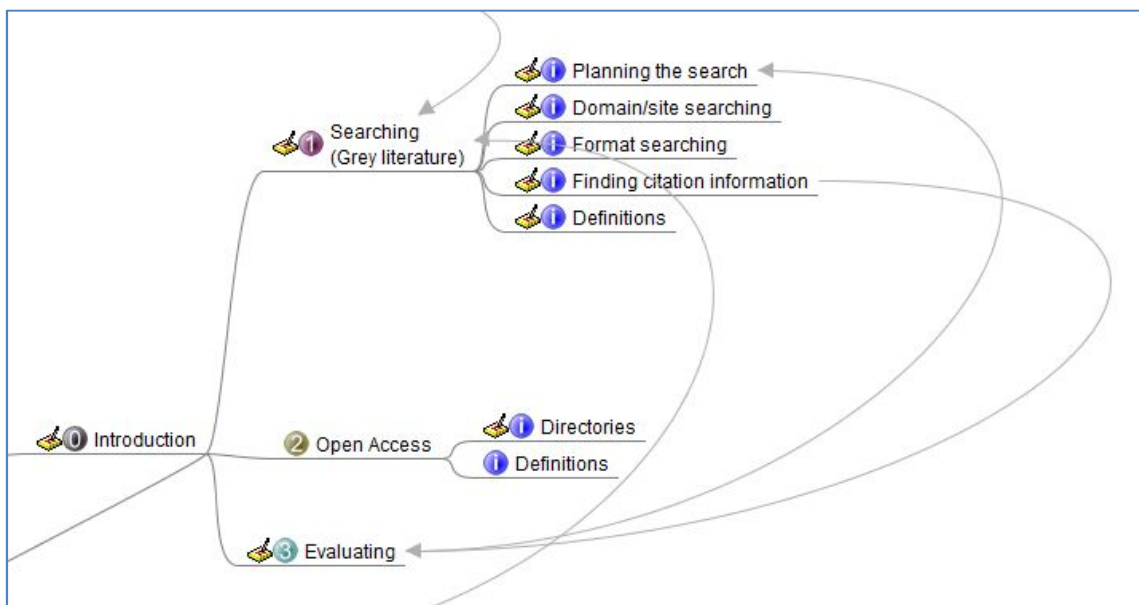


Figure 3: Detailed view of portion of mind map above

The importance of effective note taking and summary techniques for business and economics law units

1. Active revision

For any unit it is important for you to revise the material. For BusEco law units you are expected to be familiar enough with the material that you can recognise legal issues in a problem, recognise the area of law that you need to apply, and understand the steps you may need to work through to reach a reasonable conclusion.

It is useful to understand how we process information to assist us with our revision strategies.

[Explain information processing model in relation to study]

Retaining information

- **Sensory memory**
 - Our sensors are exposed to a lot of input

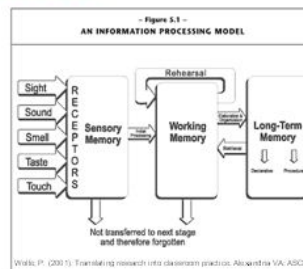



Figure 4: Subject matter expert storyboard



MONASH University


Monash University Library

Placing material on Monash websites


Duration: open

Please answer these questions before using materials for commercial activities or activities unrelated to higher education courses, and before placing any material on a Monash public-access website

Tools/Resources

 **Lesson:** *Can I place this material on the Monash website?*

Description: Answer the questions by applying your current situation to get relevant feedback



place-material-online
-moodle-lesson.docx

Figure 5: Educational design storyboard using Moodle template

1. Beyond the Library : Using the internet for academic research

Screen Text	Interactions/Media				
<p>By the end of this tutorial you will be able to:</p> <ul style="list-style-type: none"> Identify when you need to use the web in your research Find academic literature on the web Evaluate web-based resources Organise information you have found on the web <p>Instruction: Check your knowledge: try out this <u>quiz</u> to see which <i>module</i> will be most helpful to you. Or skip straight to the tutorial menu by clicking next...</p>	<div> <p>? Check your Knowledge</p> <p>Quiz to direct students to appropriate modules for their needs (pre-quiz)</p> <table border="1"> <thead> <tr> <th>Questions</th><th>Answers</th></tr> </thead> <tbody> <tr> <td>1. Which of these items used in your research would be best found on the internet?</td><td> <p>a. Government reports. (Correct)</p> <p>b. eBooks (Incorrect)</p> <p>c. Journal articles. (Incorrect)</p> </td></tr> </tbody> </table> <p>Feedback: Books and journal articles are best found in the library as the library pays for access to these resources.</p> </div>	Questions	Answers	1. Which of these items used in your research would be best found on the internet?	<p>a. Government reports. (Correct)</p> <p>b. eBooks (Incorrect)</p> <p>c. Journal articles. (Incorrect)</p>
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Monash University, Clayton Campus, Wellington Road, Clayton, Victoria, 3800, Australia
 Telephone +61 3 9902 6000 Facsimile +61 3 9905 4007
 www.lib.monash.edu.au
 File name: self-paced-id-storyboard.dot

Figure 6: Educational design storyboard using standard template

2 Using photos of people

Using photos of people

Graeme works in HR and is putting together an internal flyer to promote a new service. He is worried that the design is a bit dull and decides to use a photograph he took a couple of years ago of some colleagues.

Graeme can't ask these individuals if it'd be okay to use the photo because they no longer work at Monash. Besides, he knows they wouldn't mind!



by Monash University
<http://www.flickr.com/photos/monashuni/8228031441/>

CONTINUE

Figure 7: Adobe Captivate module embedded within Moodle book module

6.2 Questionnaire

An online questionnaire was administered just before completion of the course. The purpose was to gauge general feelings about various components of the course and to determine issues for further investigation in the focus group.

The questionnaire consisted of 26 questions divided into five sections: (1) e-learning experience, (2) course environment, (3) course tasks, (4) course tools and resources, and (5) learning.

E-learning experience

All participants in this course, consisting of librarians and learning skills advisers, had considerable face-to-face teaching experience and, compared with the previous course (Smith & Yates, 2012), more participants had previously taken part in an online course. This may account for there being fewer questions about course tasks than was the case previously (see Table 2: Previous online course experience).

Also compared with the previous course more participants had e-learning development experience (see Table 3: E-learning development experience). There were fewer technology related questions than before, perhaps because these participants were more experienced than the previous group. However, even those who had little to no experience did not seem to require much mentoring. They were very self-directed learners and seemed highly motivated, contributing to the perception that the course was effective.

Evaluation question	Responses	
	Yes	No
Have you taken part in an online course before?	4	3

Table 2: Previous online course experience

Evaluation statement	Responses			
	1-None	2	3	4-Extensive
Rate your previous experience in creating e-learning content	1	3	3	0

Table 3: E-learning development experience

Course environment

Overall the ratings for course environment (usability, functionality, and appeal) were positive, but showed a slight decline compared to the previous course. This is not surprising because the implementation log and focus group reveals that there were times when task deadlines were hard to find as a result of the new design of the Moodle course (i.e. a block menu). One participant had the following to say about navigation in the focus group:

- a) “It took me a little while because it might be just that I am unfamiliar. Like those blocks. When I clicked on the blocks I expected something to happen and it had already happened. I had to remember where the forums were.”

During the focus group chat two participants felt that a single forum threaded with different topics would have been easier to find and search than multiple fora for the various tasks. Other issues included problems with Captivate templates due to time pressures caused by installation delays, and Moodle forum email messages working inconsistently. One participant never seemed to know when a new post had been made as the forum did not send her the notification, so she lost some of the rapidity and currency of the dialogue.

Evaluation statement	Responses			
	Strongly disagree	Disagree	Agree	Strongly agree
The course site design was professional	1	0	4	2
The technology used in the course worked without problems	1	2	3	1
It was easy to find my way around the site	0	0	6	1

Table 4: Course environment

Course tasks

The course tasks attracted an overall favourable rating which corresponded with the previous course findings (see Table 5: Course tasks, Figure 8: Most beneficial activity and Figure 9: Least beneficial activity). The ratings of most and least beneficial activities were varied but show that creating the modules and reviewing each others' work were the most beneficial activities, which is in support of the social constructivist learning and authentic learning design. The workshops did not feature strongly, which was surprising. Based on the questionnaire comments and the focus group feedback, this was not because the workshops themselves were not useful, but that the delays in installing the software caused the workshops to be less effective because participants did not have the valuable opportunity to practise afterwards. There was also limited value for some participants who already had extensive experience using Adobe Captivate.

The opportunity to plan was useful, but not everyone liked using mind maps to do their planning as one participant commented:

- b) "Mainly because mind-maps aren't the way in which I try to logically structure things."

This preference is reflected by one of the experts in relating her feedback to individual creativity, saying:

- c) "The unit had some elements of structure especially in the tools that were used - Eg students had to use freemind and brainstorming as their tool for planning a topic structure but this could have been completed in other ways."

In the next course, it would be worth considering revising the mind mapping task to include other planning and analysis techniques as was done in (Yates, 2007b), as well as offering other software planning options, or perhaps using paper and sticky notes. These changes might contribute to the future effectiveness of the course.

Evaluation statement	Responses			
	Strongly disagree	Disagree	Agree	Strongly agree
The course tasks were logically structured	0	0	4	3
The instructions for each task were clear	0	0	4	3
The course tasks kept me engaged in learning	0	1	5	1

Table 5: Course tasks

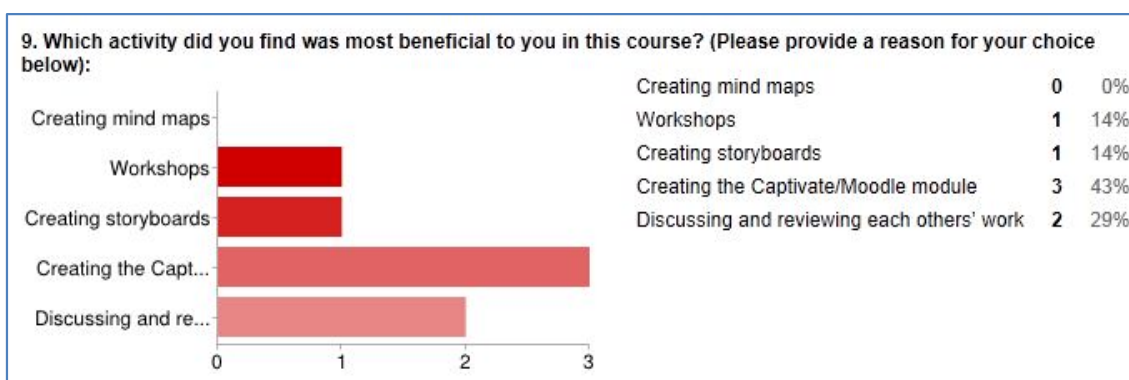


Figure 8: Most beneficial activity

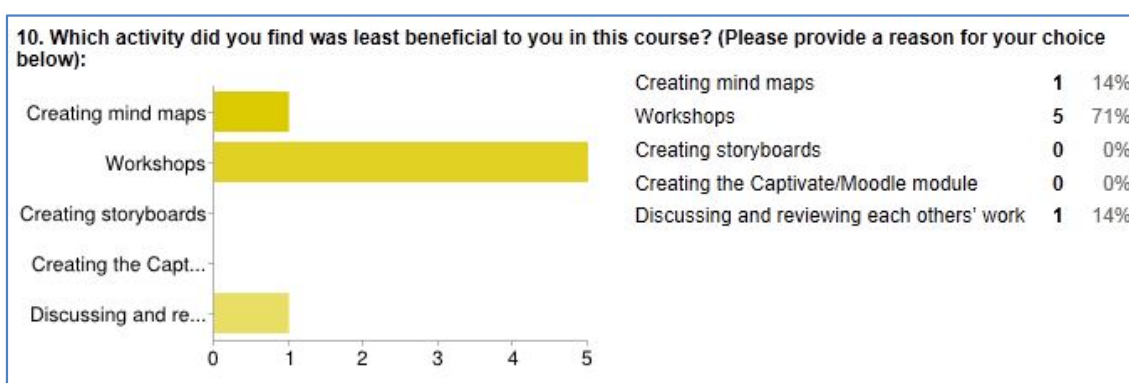


Figure 9: Least beneficial activity

Course tools and resources

The results for course tools and resources appear to have improved in some areas and regressed in others compared to the previous course (see Table 6: Course tools and resources). For example, although there were fewer people in this course, more participants felt that the discussion fora were not useful tools and there was a greater preference for online chat. This might be for several reasons. For example, the chat tool used in this course was Google

Hangouts, rather the built in text based chat within Moodle. Google Hangouts allowed for more natural conversations including voice, video and the ability to share each others' screens to display the modules. The implementation log and participant observation also shows that the session contained quality discussion and was largely self-directed, with the facilitator having to do very little by way of facilitation. Two participants had the following to say about the discussion fora and the chats:

- d) "The discussion forum was like a parallel world according to the reality of the situation, because it was like a completed product. I couldn't contribute as I wanted to, to be able to add a lot of value to the discussion."
- e) "I guess early on in the course you could have a discussion forum and a hangout. You could have the option of the hangout and discussion."

Participants also commented that the chat was more like the way Library staff work and make decisions in meetings. This is considered an effective way to get things done when staff are busy with multiple other tasks.

In the next version of this course, some redesign is required with regard to the balance between asynchronous activities such as discussion fora and synchronous activities such as the Google Hangout.

Microsoft Word has been used successfully in the Library for some time to create storyboards and take advantage of the ability to asynchronously use track changes and add comments, however some participants are interested in using Google Docs to generate and share ideas initially and then transfer the content to a storyboard template. This implies that it would be worth investigating extending the range of tools and processes for generating storyboards. This aligns with other observations in this evaluation by participants and experts about providing a greater variety of software options based on participants' preferences.

Evaluation statement	Responses			
	Strongly disagree	Disagree	Agree	Strongly agree
The web links were useful	0	0	6	1
The e-learning templates were valuable	0	0	2	5
The discussion fora were useful learning tools	0	2	4	1
The chat was a useful learning tool	0	0	4	3
Microsoft Word was a useful development tool	0	2	4	1
Captivate was a useful e-learning development tool (N/A = 0)	0	0	4	3
Moodle was a useful e-learning development tool (N/A = 1)	0	0	3	3
Freemind was a useful planning tool	0	2	4	1

Table 6: Course tools and resources

Learning

The feedback in the learning section shows the course reached its intended goals for effectiveness (see Table 7: Learning). The artefacts produced and the expert review also shows the course to be educationally sound. One participant comment supports this statement and provides support for the social constructivist learning design:

- f) “I found the feedback from other participants and [facilitator name] very useful. After working on something so intensively it's easy to be 'too close' to it and no longer see it objectively.”

However, more could be done to improve the course. The following comment reflects the frustration expressed elsewhere in this paper about not having the software available at the right times.

- g) “I certainly have gained new skills from the course, but not really all the skills I was hoping to. My initial enthusiasm for wanting to learn how to master Captivate is still not realised...”

It will be essential to ensure that all the required software is available before the commencement of the next course.

Evaluation statement	Responses			
	Strongly disagree	Disagree	Agree	Strongly agree
The topics covered in this course were relevant to my job	0	1	2	4
The course helped me gain new knowledge	0	0	3	4
The course helped me gain new skills	0	0	4	3
The course facilitator's approach was flexible	0	0	3	4
The facilitator provided sufficient scaffolding to improve my e-learning knowledge and skills	0	0	3	4
Working with others challenged my ideas and improved my understanding of e-learning development	0	0	3	4
Working with others helped me revise and improve my e-learning module	0	0	3	4

Table 7: Learning

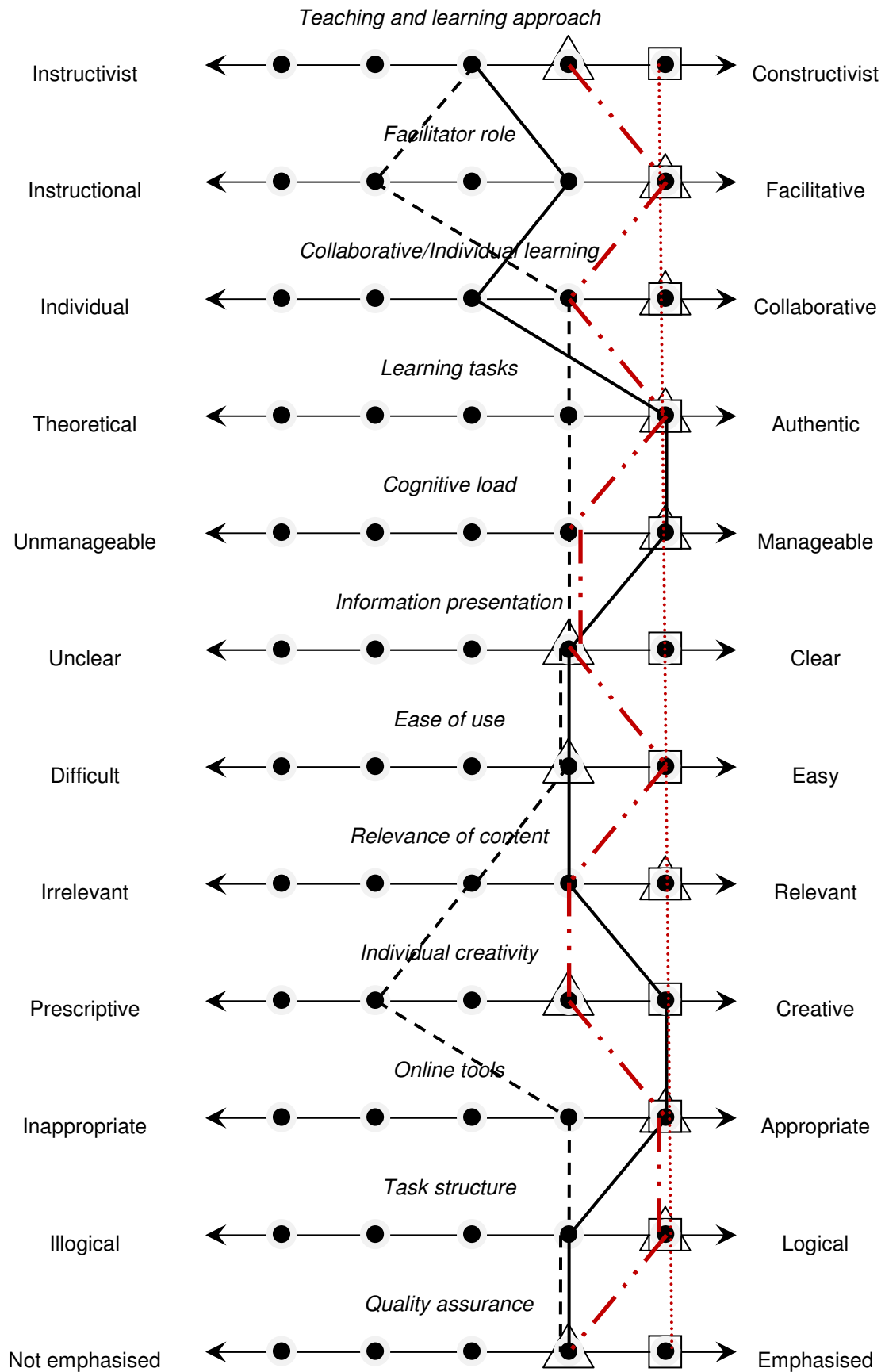
6.3 Expert rating form

The original version of this visual rating form was taken from Reeves and Hedberg (2003) and has been adapted several times since, more recently in Smith and Yates (2012) (see Figure 10: Expert review results). This type of rating scale allows educational designers to open their work to other experts in the field for review across various important design and evaluation dimensions. The visual nature of the results enables designers to perform a rapid analysis by comparing the result with any development goals and expected ratings. The lines in red represent the ratings of the two experts from the previous evaluation and the black lines the current experts. The experts who were able to perform the evaluation this time were not the same as the previous course, so this could have had some impact on the results.

The diagram demonstrates that the course rated fairly well in terms of its effectiveness, usability, functionality and appeal. The expert feedback was also positive overall. However, not all development goals and anticipated ratings were fully met, especially with regard to “teaching and learning approach” and “facilitator role”. The course is highly structured in terms of complying with the project milestones required to complete an e-learning project and there is a strong software skills development element, so perhaps the middle of the scale rating in this course reflects a more balanced instructivist/constructivist learning design. One expert comment reflects this view:

- h) "Elements of both instructional and constructivist approaches are used in this course. Largely, however, the instruction is aimed at guiding the participants. The use of templates is excellent as a guiding resource, it might, however, prove to restrict the participants' thinking - depending on their level of expertise. Provided the instructor is happy to allow alternatives to the resources provided, there are some excellent materials provided."

One expert felt that the course could have been more facilitative by having more questions posed to participants. While this has worked well in previous courses of a different nature conducted by the facilitator (Yates, 2006b, 2007b, 2008), the time pressures on staff in this course may mitigate against this. There was a noticeable difference in the level of interaction in the fora compared to other courses run by the facilitator. Perhaps the inclusion of additional Google Hangout opportunities will alleviate this issue in future. This course is very goal directed and, to a large extent needs to be, given the time constraints on participants.



only is this frustrating for participants, but also for the course facilitator, as it becomes extremely difficult to coordinate tasks, set deadlines and plan an effective schedule ahead of time. Course deadlines had to be adjusted several times and the calendar updated, which added to the work load of the facilitator. This aspect of the course requires further investigation, and might be alleviated somewhat with changing some asynchronous activities (fora) into shorter more focused synchronous activities (Google Hangouts), as well as by insights gained through conducting a broader literature review about staff development and e-learning.

Finally, this course included mentors who were participants in the previous course. It was expected that they might be able to advise on any matter relating to the course, especially when challenges arose regarding use of technology. The participants seemed self-directed and relied very little on the mentors, except in so far as discussing the actual content of their modules.

7. Conclusion

This paper described the evaluation of a blended learning course for staff conducted at Monash University Library. The purpose of the course was to develop e-learning knowledge and skills.

While the course goals were achieved and therefore suggest an effective and successful course as demonstrated through multiple methods in the evaluation, the degree of effectiveness could be improved. The following suggestions would be useful to consider for the next iteration of this course for improved effectiveness:

- a. Extend the literature review to workplace training and learning, especially with regard to online collaborative and blended learning approaches;
- b. Investigate and review administrative procedures around course completion and blocked staff time;
- c. Revisit the design of asynchronous versus synchronous learning activities with a view to incorporating more synchronous activities that more closely match how much work is completed in the Monash University Library context;
- d. Include a greater variety of software skills development and review opportunities to increase staff skills;
- e. Ensure that required software is installed and templates are developed before course commencement to avoid participant and facilitator frustration and improve educational design storyboards;
- f. Emphasise the time commitment required and importance of task deadlines before course commencement as effective collaboration relies on participants completing tasks on time;
- g. Explore integrating the Research Skill Development¹ framework used by the Library to optimise scaffolded skill development, task sequencing and to be more explicit about skills gained through undertaking of particular tasks;
- h. Acknowledge the usefulness of instruction in the design compared with a fully constructivist learning environment, as the purpose of workshops is to develop software skills;
- i. Provide a greater variety of templates and more options for planning and creating storyboards to better align with the ways that participants prefer to work; and
- j. Consider reducing the separate fora and using a single forum with different topics to reduce navigation problems.

¹ Willison, J., and O'Regan, K. (2006). *The Research Skill Development Framework*. Accessed from /rsd2/framework. The Research Skill Development framework is used at Monash University for the development of information research and learning skills and was introduced to the university by the library.

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Appendix

Course tasks

- **Pre-course work: Establish project goals**
Participants were required to identify an e-learning module that would be required, identify project members, and provide a synopsis of the project for a Library committee.
- **Workshop 1: Introduction to Moodle and e-learning**
This session consisted of a presentation about e-learning and a discussion, followed by a hands-on session explaining Moodle and what was required of participants. As part of the hands-on session, participants were required to complete task one.
- **Task 1: Outline your project**
This task was an online activity to be completed within a discussion forum. Participants were required introduce themselves and their project. This was deemed a suitable activity for participants to familiarise themselves with Moodle and the discussion forum.
- **Task 2: Meet with project stakeholders**
In this task participants were required to meet with and gain feedback from stakeholders involved with the project, including students and academics who might be end-users of the e-learning module. This feedback was to be used to inform the development of the remainder of the project.
- **Workshop 2: Using Freemind**
This workshop comprised a one hour session on how to use the Freemind mind mapping software, and a two hour practical session for participants to discuss the structure of their module and create a mind map depicting how it would be structured. This second part of the workshop was task three.
- **Task 3: Plan topic structure using Freemind**
In task three participants were required to upload their mind map into the discussion forum provided.
- **Task 4: Write a Subject Matter Expert storyboard**
In task four participants were required to use their mind maps created in task three to develop a subject matter expert storyboard. This document consisted of the overall topic structure of the e-learning module, including any text and other resources relevant to each topic. These storyboards were each uploaded to the database tool provided so that participants could view each others' work.
- **Task 5: Review Subject Matter Expert storyboard**
In this task a discussion forum was provided where participants could review at least one other group's work using the track changes features with Microsoft word, as well as the text input area in the discussion forum.
- **Workshop 3: Work with development tools**
This workshop consisted of two options: (1) learning how to create multimedia learning activities using Adobe Captivate 6, or (2) using Moodle.
- **Reading activity: Learning and interactive activities**
This activity was included to provide participants with additional background information about learning, e-learning and creating engaging online learning interactions, which would be useful for the next task.
- **Task 6: Write an educational design storyboard**
This task was deemed a significant undertaking for participants and would require a block of time away from their regular work duties. This task required participants to use

their subject matter expert storyboard, taking into account feedback from other groups, to develop a new document, an educational design storyboard that depicted as closely as possible the end result of the final e-learning product. The document was to include the topic structure, the order of each screen, the exact words to be used within each screen and a description of each of the interactions to appear on each screen. On completion, participants were required to upload the document into the database provided so that others could view their work.

- **Task 7: Review educational design storyboard**

In this task each group was required to review another group's storyboard, using track changes within Microsoft Word and the discussion forum.

- **Workshop 4: Use development tools - intermediate**

This workshop consisted of two options: (1) using a specially developed Captivate template for e-learning modules, or (2) using two features in Moodle (the book module and quizzes). This session was included so that participants would be better equipped to complete task eight.

- **Task 8: Develop a prototype**

This task required participants to develop an e-learning module/product prototype as close to completion as possible. This activity required a significant amount of time and skill and was considered the main task in this course. For this reason, participants were given the option of using four days from their normal work duties to complete the task. The prototypes were uploaded to a Web server or included within a Moodle course.

- **Task 9: Review prototypes**

This task was a 90 minute Google Hangout chat where each group had the opportunity to show their module to other participants and chat about it. The purpose was for everyone to review each others' work and provide constructive feedback for module improvement. After the chat each group was required to provide a summary of the feedback for their group and post it in a discussion forum to serve as a reminder of changes required and to share with each other.

- **Task 10: Assemble final module and develop media**

After task nine participants were required to use the feedback received during the chat to improve their modules. They were also required to add any missing media, such as images or interactive elements such as quizzes, etc to develop a complete polished product. Their products were uploaded to a Library web server and a URL obtained.

- **Task 11: Release to small target group for feedback**

In this task participants were required to show their module to a small target audience and gather feedback for any final changes and corrections. The target group could include their peers, academics and people who will use the module for learning, such as students. The feedback was to be placed on a document and uploaded to a discussion forum as a record and for others to read.

- **Task 12: Publish and create accessibility documents**

Once the final changes were made, participants were required to create appropriate accessibility documentation for learners who would have difficulty viewing and using the e-learning module, due to disability or access issues. Any e-learning content developed by Monash University Library that is placed in a public space is provided with an accessible alternative.